

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

RECEIVED
Office of Oil and Gas

OCT 13 2017

WV Department of
Environmental Protection

API 47-043-03569 County LINCOLN District DUVAL
Quad GRIFFITHSVILLE 7.5' Pad Name OLIVER HILL Field/Pool Name GRIFFITHSVILLE
Farm name RAYBOURN, D. ARTHUR & MARJORIE Well Number 264
Operator (as registered with the OOG) H.G. ENERGY LLC
Address 5260 DuPONT ROAD City PARKERSBURG State WV Zip 26101

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,232,548 M Easting 416,512 M
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing _____ Easting _____

Elevation (ft) 725' GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine
Mud Type(s) and Additive(s)
N/A

Date permit issued 3/14/17 Date drilling commenced 8/9/17 Date drilling ceased 8/20/17
Date completion activities began 8/31/17 Date completion activities ceased 9/8/17
Verbal plugging (Y/N) N Date permission granted _____ Granted by _____

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 15', 20', 40' Open mine(s) (Y/N) depths None
Salt water depth(s) ft 894', 1180' Void(s) encountered (Y/N) depths None
Coal depth(s) ft 255'- 260' Cavern(s) encountered (Y/N) depths None
Is coal being mined in area (Y/N) N

APPROVED

NAME: Jeffrey Smith
DATE: 11-15-17

Reviewed by: _____
01/05/2018

API 47-043 - 03569 Farm name RAYBOURN, D. ARTHUR & MARJORIE Well number 264

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	15"	13 3/8"	30'	New	LS		Sand In
Surface	8 7/8"	7"	675.21'	New	LS	30'	N
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	6 1/4"	4 1/2"	2384.06'	New	J-55		N
Tubing							
Packer type and depth set							

Comment Details Grouted w/ Est. 25 sks on 7" surface cement job.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor							
Surface	Reg Neat	175	15.6	1.18	207	Surface	8
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	50:50 Pozmix	95/125	13.2/14.2	1.64/1.27	156/186	372'	8
Tubing							

Drillers TD (ft) 2404' Loggers TD (ft) 2409'

Deepest formation penetrated Berea Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) N/A

Check all wireline logs run caliper density deviated/directional induction
 neutron resistivity gamma ray temperature sonic

Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING _____

12 Centralizers every 84' from bottom on 4 1/2", Centralizer placed mid string on 7"

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

API 47- 043 - 03569 Farm name RAYBOURN, D. ARTHUR & MARJORIE Well number 264

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	8/31/17	2210'	2220'	40	Berea

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	9/8/17	4	1335	1727	1225	1,000	140	

Please insert additional pages as applicable.

01/05/2018

API 47- 043 - 03569 Farm name RAYBOURN, D. ARTHUR & MARJORIE Well number 264

PRODUCING FORMATION(S)	DEPTHS	
Berea	2204'- 2226'	TVD _____ MD _____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump
 SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST _____ hrs
 OPEN FLOW Gas _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ bpd GAS MEASURED BY
 Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
Sand/Shale	0	255	0		
Pittsburgh Coal	255	260			
Sand/Shale	260	1484			
Big Lime	1484	1686			
Big Injun	1686	1792			
Shale	1792	2184			
Coffee Shale	2184	2204			
Berea	2204	2226			
Shale	2226	2404			
TD	2404				

Please insert additional pages as applicable.

Drilling Contractor Noah Horn Well Drilling
 Address 1070 Sandy Valley Lane City Vansant State VA Zip 24656

Logging Company Weatherford International
 Address 13211 Old Hwy 50 City Flora State IL Zip 62839

Cementing Company C & J Energy Services
 Address 580 Hawthorn Dr City Norton State VA Zip 24273

Stimulating Company Producers Service Corp.
 Address 109 South Graham Street City Zanesville State OH Zip 43701

Please insert additional pages as applicable.

Completed by Roger Heldman Telephone 304-420-1107
 Signature *Roger Heldman* Title Operations Manager Date 10/2/17

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

Prepared for:

H G Energy

Dustin Hendershot

304-481-7342



Prepared by:

Producers Service Corp

Daniel L Graham

109 S. Graham St.

Zanesville, OH 43702

740-454-6253

INVOICE #:	20007
WELL NAME:	Olvier Hill #264
COUNTY/STATE:	Lincoln/WV
TOWNSHIP/FIELD:	Grifithsville
DATE of SERVICE:	9/8/2017
CUSTOMER PO#:	

Description	Notes	Amount	Units	Unit Cost	Total Cost
FLUID PUMP CHARGE 0-3000 PSI MIN CHARGE 4 HRS		1	EA		
BLENDER CHARGE 0-10 BPM		1	EA		
MILEAGE CHARGE PER UNIT ONE WAY	2 Units @200 Miles		MI		
IC ACID 15%		250	GAL		
PRO HIB II		0.5	GAL		
ACID DELIVERY		2	HR		
PRO CLA FIRM LP		6	GAL		
PRO NE-21		6	GAL		
PRO GEL 4		150	LB		
BUFFER I		50	LB		
DATA VAN		1	STAGE		
BIO CLEAR 750		1	LB		
IRONROL		50	LB		
SAND 20/40 OTTAWA		10	CWT		
SAND DELIVERY / TON MILES		100	TMILE		

Customer Approval: _____